

# Notice of Allowability

Application No.

10/608,493

Examiner

Thuy V. Tran

Applicant(s)

PARK ET AL.

Art Unit

2821

## -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 06/30/2003 & Interview held 08/23/2004.
2. ☒ The allowed claim(s) is/are 1-6,8-11,13-22,25 and 26.
3. ☒ The drawings filed on 30 June 2003 are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All b) ☐ Some\* c) ☐ None of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

### Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☒ Interview Summary (PTO-413), Paper No./Mail Date 082304.
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
Thuy V. Tran  
Examiner  
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### DETAILED ACTION

This is a response to the Applicant's filing on June 30<sup>th</sup>, 2003 and the telephone interview held on August 23<sup>rd</sup>, 2003 (see attached Interview Summary Form). In virtue of this filing and this telephone interview:

- Claims 1-26 are originally filed;
- Claims 7, 12, and 23-24 are cancelled (in virtue of the telephone interview; see attached Interview Summary Form and/or below); and
- Thus, claims 1-6, 8-11, 13-22, and 25-26 are now presented in the instant application.

### *Examiner's Amendment*

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Joseph A. Kolasch on August 23<sup>rd</sup>, 2004. The amendment includes:

*Claim 1:*

*Line 1, insert --organic-- between "An" and "electro-luminescence";*

*Line 12, between "terminal" and ".", insert --, and wherein a common voltage supplied from the cathode voltage source is set to be higher than a total voltage obtained by adding a threshold voltage of the electro-luminescence cell after subtracting a threshold voltage of a switching device from a cell drive voltage of the cell drive voltage source--;*

*Claim 6:*

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*Line 5, insert --wherein the switching device is-- in front of "a";*

*Claim 7: canceled;*

*Claim 11:*

*Line 7, insert --wherein the switching device is-- in front of "a";*

*Claim 12: canceled;*

*Claim 22:*

*Line 13, change "." to --;--;*

*Line 14, insert --wherein the step of applying the scan voltage to the row lines includes charging a capacitor with the supplied data through a switching device, and wherein the step of switching the switch to the ground voltage source includes applying a voltage charged in the capacitor to the switching device connected between the cell drive voltage source and the electro-luminescence cell, adjusting a current path width of a source and a drain terminal of the switching device by the applied data voltage, and causing the electro-luminescence cell to emit light by a voltage difference between the cell drive voltage source and the ground voltage source corresponding to the applied data voltage.--;*

*Claim 23: canceled; and*

*Claim 24: canceled.*

***Allowable Subject Matter***

2. Claims 1-6, 8-11, 13-22, and 25-26 are allowed.

***Reasons for Allowance***

3. The following is an examiner's statement of reasons for allowance:

Prior art fails to disclose or fairly suggest:

- An organic electro-luminescence device wherein a common voltage supplied from the cathode voltage source is set to be higher than a total voltage obtained by adding a threshold voltage of the electro-luminescence cell after subtracting a threshold voltage of a switching device from a cell drive voltage of the cell drive voltage source, in combination with the remaining claimed limitations as called for in independent claim 1 (claims 2-6, 8-11, and 13-15 are allowed since they are dependent on claim 1);
- An apparatus for driving an organic electro-luminescence device comprising a power supplier applying a drive voltage to the display panel, the data driver, the scan driver, and the timing controller, and applying a cathode voltage to a cathode terminal of an electro-luminescence cell within at least one electro-luminescence pixel unit, in combination with the remaining claimed limitations as called for in independent claim 16 (claims 17-21 are allowed since they are dependent on claim 16); and
- A method for driving an organic electro-luminescence device wherein the step of switching the switch to the ground voltage source includes applying a voltage charged in the capacitor to the switching device connected between the cell drive voltage source and the electro-luminescence cell, adjusting a current path width of a source and a drain terminal of the switching device by the applied data voltage, and causing the electro-luminescence cell to emit light by a voltage difference between the cell drive voltage source and the ground voltage source corresponding to the applied data voltage, in combination with the remaining claimed limitations as called for in

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independent claim 22 (claims 25-26 are allowed since they are dependent on claim 22).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

***Citation of relevant prior art***

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Prior art Asano (Pub. No.: US 2003/0001828 A1) discloses an active matrix type display.

Prior art Yumoto (Pub. No.: US 2002/0195964 A1) discloses an active matrix type display.

Prior art Ishizuka (U.S. Patent No. 6,731,276) discloses an active matrix display device.

Prior art Battersby (U.S. Patent No. 6,448,718) discloses an active matrix display device.

Prior art Osada et al. (U.S. Patent No. 6,271,812) discloses an electro-luminescence display device.

***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thuy V. Tran whose telephone number is (571) 272-1828. The examiner can normally be reached on M-F (8:00 AM -5:00 PM).

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Don Wong can be reached on (571) 272-1834. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Thuy V. Tran  
Examiner  
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08/25/2004

A handwritten signature in black ink, appearing to read 'Thuy V. Tran', is written over the printed name and title.